

REMARKS

The Examiner, Mr. Johnston, is thanked for the courtesy extended applicants' attorney during the telephone discussion of today, during which time an interview was proposed, but it was considered best to file an amendment for consideration by the Examiner. After review of the amendment, the Examiner is invited to contact the undersigned attorney to schedule an interview or discuss any matters to place this application in condition for allowance.

The indication that claims 1-11 are allowed, as set forth in paragraph 2 at page 2 of the Office Action, is acknowledged. However, it is noted that claim 3 was canceled in the Amendment filed June 27, 2003, such that it appears that claims 1, 2 and 4-11 stand allowed.

Applicants note that the Examiner has indicated that claims 1-11 are allowed because prior art fails to show a defect inspection apparatus that utilizes a laser ray source as defined in claim 1.

By the present amendment, independent claims 12 and 19 have been amended to further recite the feature of "an objective lens" as illustrated in Fig. 1 of the drawings of this application, for example, in which the ultraviolet laser ray L2 illuminates or irradiates the object (wafer) 1 by passing through a coherence reduction optical system 7, a polarized beam splitter 9, a group of polarizer elements 10 and an objective lens 11, as described at page 14, lines 11-27 of the specification, for example. Thus, by the present amendment, claims 12 and 19 have been amended to further define the ultraviolet laser ray as passing through the objective lens in addition to the previously recited features of the coherence reduction optical system, polarized beam splitter and group of polarizer elements. As described at page 14 of the specification, this arrangement enables obtaining high-brightness illumination representative of bright field illumination, wherein illumination by the laser ray is effected upon the object or sample to be inspected

through the objective lens as well as detecting an optical image upon the surface of the sample through the same objective lens, as is apparent from Fig. 1 of the drawings of this application. Additionally, other features of independent claims 12 and 19, which appear to be redundant, have been deleted, and, by the present amendment, claims 18 and 20, which are dependent claims, dependent upon allowed claims have been amended to correct informalities therein.

With respect to the claims under rejection, i.e. claims 12-20, applicants note that claims 13, 14 and 17 were previously cancelled, claims 15 and 16 are dependent claims dependent directly or indirectly from claim 12, claim 18 is a dependent claim dependent upon allowed claim 1 and claim 20 is a dependent claim dependent upon allowed claim 8. Applicants note that since claim 18 depends from allowed claim 1 and claim 20 depends from allowed claim 8, such claims should be in condition for allowance with their parent claims, so that the rejection thereof over the cited is considered to be improper and should be withdrawn.

Furthermore, as to the rejection of claim 15 over the cited art, applicants note that claim 15 is a dependent claim and recites the features of the ultraviolet laser-generating device in a manner substantially coextensive with the features as recited in allowed claim 1 so that applicants submit that claim 15 and claim 16 which depends upon claim 15 should also be considered allowable at this time.

As to the rejection of claims 12-20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,411,377 to Noguchi (377) in view of Kokuchi, U.S. Patent No. 5,832,009, such rejection is traversed, and reconsideration and withdrawal of the rejection is respectfully requested. Again, It is noted that claims 13, 14 and 17 have been canceled in the Amendment filed June 27, 2003 and that claims 18 and 20 are dependent claims depending from allowed claims..

As to the requirements to support a rejection under 35 U.S.C. 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court

pointed out that the PTO has the burden under §103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the recent decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge".

The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

In setting forth the rejection based upon Noguchi (377) and Kikuchi (009), the Examiner points to various features of the illumination system 100 of Noguchi (377) as having a laser-beam source 101, a beam splitter comprising a concave lens 102 and a convex lens 103, an illumination lens 104 having a conical surface.

Apparently, the Examiner recognizes that Noguchi (377) does not disclose a coherence reduction optical system and therefore refers to Kikuchi (009) as disclosing an ultraviolet laser apparatus that includes an optic resonator and coherence reduction optical system. The Examiner contends that it would have been obvious to one of ordinary skill in the art that Noguchi's (377) defect inspection apparatus can be modified to use the laser light generating means in accordance with the teachings of Kikuchi (009) to reduce speckle.

Irrespective of the position set forth by the Examiner, applicants note that Noguchi (377) discloses as shown in Fig. 3 thereof, the illumination of the laser light onto the wafer 1 as an object or sample to be inspected in an inclined or oblique direction without passing through an objective lens, as represented by the objective lens 11 in Fig. 1 of the drawings of this application. Thus, Noguchi (377) is directed to the utilization of so-called "dark field illumination" rather than bright field illumination of the present invention, in which the laser light passes through a coherence reduction optical system, a polarized beam splitter, a group of polarizer elements and an objective lens, as now recited in independent claims 12 and 19. There is no disclosure or teaching in Noguchi (377) or Kikuchi (009) of the recited features of claims 12 and 19 in the sense of 35 U.S.C. 103, and applicants submit that passing the illumination light of the laser light in Noguchi (377) through an objective lens in the manner as set forth in claims 12 and 19 would be directly contrary to the disclosure and teachings thereof. Further, applicants note that the Examiner has failed to indicate that Noguchi (377) or Kikuchi (009) disclose or teach the passing of the laser light through a group of polarizer elements, in addition to the

coherence reduction optical system and polarizer beam splitter as previously recited in claims 12 and 19, irrespective of the feature as now added of "an objective lens". Thus, applicants submit that Noguchi (377) taken alone and/or in combination with Kikuchi (009) fail to disclose or teach in the sense of 35 U.S.C. 103 the recited features of independent claims 12 and 19 and the dependent claims thereof. Thus, applicants submit that claims 12 and 19 and the dependent claims 15 and 16 should now be in condition for allowance.

With respect to dependent claims 15 and 16, applicants submit that such claims further defines features of the present invention, wherein claim 15 is substantially coextensive with the features of allowed claim 1, and claim 16 is substantially coextensive with the features of allowed claim 2. Irrespective of the position by the Examiner, such recited features are not disclosed or taught by Noguchi (377) and/or Kikuchi (009) taken alone or in any combination thereof. Thus, applicants submit that claims 15 and 16 further patentably distinguish over the cited art for the reasons given above and should now be in condition for allowance.

As pointed out above, with respect to dependent claims 18 and 20, such claims have been amended to correct minor informalities therein, with the claims being dependent upon allowed claims 1 and 8 and therefore applicants submit that such claims should be considered allowable together with parent claims thereof. Applicants submit that these claims recite further features which, contrary to the position set forth by the Examiner, are not disclosed or taught in the cited art irrespective of the dependency thereof, which should result in allowance of these claims.

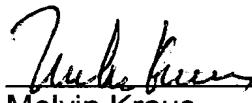
In view of the above amendments and remarks, applicants submit that all claims present in this application patentably distinguish over the cited art and should now be in condition for allowance, such that in addition to allowed claims 1, 2 and 4-

11, claims 12, 15, 16 and 18-20 should now be in condition for allowance.

Accordingly, issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (520.39440X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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